

測試報告 Test Report

報告編號(No.): HKC25400068

報告日期(DATE): 2025/04/18

頁數(PAGE): 1 of 5

文采有限公司 (ALION TECHNOLOGY CO., LTD.)

台中市梧棲區自立一街42號 (NO. 42, TZU LI 1ST STREET, WU CHI DIST., TAICHUNG CITY, 43546, TAIWAN, R. O. C.)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as) :

送樣廠商(Sample Submitted By) : 文采有限公司 (ALION TECHNOLOGY CO., LTD.)
樣品名稱(Sample Description) : INK (油墨)
樣品型號(Style/Item No.) : 黑 (BLACK)

收件日(Sample Receiving Date) : 2025/04/09
測試期間(Testing Period) : 2025/04/09 to 2025/04/18

測試需求 (Test Requested)

依據客戶要求，參考以下指令進行測試：2009/48/EC及其修正指令Council Directive (EU) 2017/738, Commission Directive (EU) 2018/725, Commission Directive (EU) 2019/1922 - EN 71-3 : 2019 + A2 : 2024 特定元素遷移。測試項目請參閱測試結果表格。(As specified by client, the sample(s) was/were tested with reference to Directive 2009/48/EC and its amendments Council Directive (EU) 2017/738, Commission Directive (EU) 2018/725, Commission Directive (EU) 2019/1922 - EN71-3: 2019 + A2:2024 – Migration of certain elements. Please refer to the result table(s) for details.)

測試結果 (Test Results)

: 請見下一頁。(Please refer to next page(s).)

Ray Chang
報告簽署人/張伯睿 博士/部經理
Ray Chang, Ph.D. / Department Manager
Signed for and on behalf of
SGS Taiwan Ltd
化學實驗室-高雄/
Chemical Laboratory-Kaohsiung



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測試部位敘述(Test Part Description)

No.1 : 黑色油墨(乾基) (BLACK INK (DRY BASE))

測試結果(Test Results)

第三類：可刮取的玩具材料。 / Category III: Scrapped-off toy material.

通過(PASS)

測試項目 (Test Item(s))	測試方法 (Method)	單位 (Unit)	RL	結果 (Result)	參考限值 (Ref. Limit)
				No.1	
EN 71-3 : 2019 + A2 : 2024 – 可遷移元素 / EN 71-3 : 2019 + A2 : 2024 – Migration of certain elements					
溶出鋅 (Zn) / Soluble Zinc (Zn) (CAS No.7440-66-6)	參考 EN 71-3 : 2019 + A2 : 2024，以感應耦合電漿原子發射光譜儀(ICP-OES)分析。 / With reference to EN 71-3 : 2019 + A2 : 2024. Analysis was performed by ICP-OES.	mg/kg	50	81.0	46000
溶出銫 (Sr) / Soluble Strontium (Sr) (CAS No.7440-24-6)		mg/kg	50	n.d.	56000
溶出錫 (Sn) / Soluble Tin (Sn) (CAS No.7440-31-5)		mg/kg	4.9	n.d.	180000
溶出鎳 (Ni) / Soluble Nickel (Ni) (CAS No.7440-02-0)		mg/kg	10	n.d.	930
溶出錳 (Mn) / Soluble Manganese (Mn) (CAS No.7439-96-5)		mg/kg	50	n.d.	15000
溶出銅 (Cu) / Soluble Copper (Cu) (CAS No.7440-50-8)		mg/kg	50	n.d.	7700
溶出鉻 (Cr) / Soluble Chromium (Cr) (CAS No.7440-47-3)		mg/kg	5	n.d.	-
溶出鋇 (Ba) / Soluble Barium (Ba) (CAS No.7440-39-3)		mg/kg	50	n.d.	18750
溶出硼 (B) / Soluble Boron (B) (CAS No.7440-42-8)		mg/kg	50	n.d.	15000

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測試項目 (Test Item(s))	測試方法 (Method)	單位 (Unit)	RL	結果 (Result)	參考限值 (Ref. Limit)
				No.1	
溶出鋁 (Al) / Soluble Aluminum (Al) (CAS No.7429-90-5)	參考 EN 71-3 : 2019 + A2 : 2024 , 以感應耦合電漿原子發射光譜儀(ICP-OES)分析。 / With reference to EN 71-3 : 2019 + A2 : 2024. Analysis was performed by ICP-OES.	mg/kg	50	n.d.	28130
溶出硒 (Se) / Soluble Selenium (Se) (CAS No.7782-49-2)		mg/kg	10	n.d.	460
溶出銻 (Sb) / Soluble Antimony (Sb) (CAS No.7440-36-0)		mg/kg	10	n.d.	560
溶出鉛 (Pb) / Soluble Lead (Pb) (CAS No.7439-92-1)		mg/kg	10	n.d.	23
溶出汞 (Hg) / Soluble Mercury (Hg) (CAS No.7439-97-6)		mg/kg	10	n.d.	94
溶出鈷 (Co) / Soluble Cobalt (Co) (CAS No.7440-48-4)		mg/kg	10	n.d.	130
溶出砷 (As) / Soluble Arsenic (As) (CAS No.7440-38-2)		mg/kg	10	n.d.	47
溶出鎘 (Cd) / Soluble Cadmium (Cd) (CAS No.7440-43-9)	參考 EN 71-3 : 2019 + A2 : 2024 , 以液相層析感應耦合電漿質譜儀(LC-ICP-MS)分析。 / With reference to EN 71-3 : 2019 + A2 : 2024. Analysis was performed by LC-ICP-MS.	mg/kg	5	n.d.	17
溶出六價鉻 Cr (VI) / Soluble Chromium (VI) (Cr (VI)) (CAS No.18540-29-9)		mg/kg	0.01	n.d.	0.053
溶出三價鉻 Cr (III) / Soluble Chromium (III) (Cr (III)) (CAS No.16065-83-1)	參考 EN 71-3 : 2019 + A2 : 2024 , 溶出三價鉻由計算求得。 / With reference to EN 71-3 : 2019 + A2 : 2024. Soluble Chromium (III) was obtained by calculation.	mg/kg	5	n.d.	460

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測試項目 (Test Item(s))	測試方法 (Method)	單位 (Unit)	RL	結果 (Result)	參考限值 (Ref. Limit)
				No.1	
溶出有機錫 / Soluble organic tin					
單丁基錫 (BuT) / n-butyltin (BuT)	參考 EN 71-3 : 2019 + A2 : 2024 , 以 氣相層析質譜儀(GC/MS)分析。 / With reference to EN 71-3 : 2019 + A2 : 2024. Analysis was performed by GC/MS.	mg/kg	1.8	n.d.	-
二丁基錫 (DBT) / Dibutyl tin (DBT)		mg/kg	1.8	n.d.	-
二甲基錫 (DMT) / Dimethyl tin (DMT)		mg/kg	1.8	n.d.	-
二辛基錫 (DOT) / Dioctyl tin (DOT)		mg/kg	1.8	n.d.	-
二苯基錫 (DPhT) / Diphenyl tin (DPhT)		mg/kg	1.8	n.d.	-
二丙基錫 (DProT) / Di-n-propyl tin		mg/kg	1.8	n.d.	-
單甲基錫 (MeT) / Methyl tin (MeT)		mg/kg	1.8	n.d.	-
單辛基錫 (MOT) / Monoctyl tin (MOT)		mg/kg	1.8	n.d.	-
三丁基錫 (TBT) / Tributyl tin (TBT)		mg/kg	1.8	n.d.	-
四丁基錫 (TeBT) / Tetrabutyl tin (TeBT)		mg/kg	1.8	n.d.	-
三苯基錫 (TPT) / Triphenyl tin (TPT)		mg/kg	1.8	n.d.	-
溶出有機錫 / Soluble Organic Tin	mg/kg	-	n.d.	12	

備註(Note) :

1. mg/kg = ppm ; 0.1% = 1000 ppm
2. RL = Reporting Limit (報告極限值)
3. n.d. = Not Detected (未檢出) = Less than (小於) RL
4. 本報告不得分離或擷錄使用。(The report is invalid if it is partly reproduced or used.)
5. 本實驗室之報告符合性聲明依ILAC-G8:09/2019簡單允收之二分法判定規則(w=0 · AL=TL)做為測試結果符合性聲明判定之判定依據。(The decision rule of the statements of conformity is following the ILAC G8:09/2019 by using the simple acceptance decision rule.)
6. "-" = Not Regulated (無規格值)
7. 樣品以乾基進行測試。(Test done on dried paint sample.)

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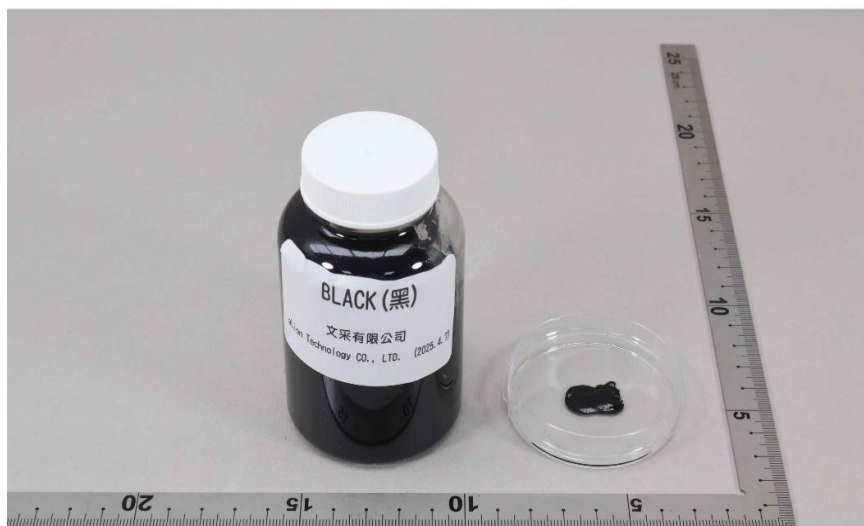
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* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。*

(The tested sample / part is marked by an arrow if it's shown on the photo.)

HKC25400068

**** 報告結尾 (End of Report) ****

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